

Notice of Allowability

Application No.

10/781,335

Applicant(s)

ERIKSON ET AL.

Examiner

David M. Fenstermacher

Art Unit

3682

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to Application filed 2/17/04.
2. ☒ The allowed claim(s) is/are 1-36, 41-42.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some* c) ☐ None of the:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
- (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
- 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
- (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

- | | |
|------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|
| 1. <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 5. <input type="checkbox"/> Notice of Informal Patent Application |
| 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 6. <input type="checkbox"/> Interview Summary (PTO-413),
Paper No./Mail Date _____ |
| 3. <input checked="" type="checkbox"/> Information Disclosure Statements (PTO/SB/08),
Paper No./Mail Date <u>10/20/04</u> | 7. <input checked="" type="checkbox"/> Examiner's Amendment/Comment |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit
of Biological Material | 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance |
| | 9. <input type="checkbox"/> Other _____ |

REASONS FOR ALLOWANCE

1. The following is an examiner's statement of reasons for allowance:

None of the prior art of record shows or renders obvious the lead screw of claims 1, 16, and anti-backlash nut of claims 20 and 40 and the method of claim 41, specifically:

Claim 1 requires at least one second gap portion having an outer diameter that is less than the outer diameter of the first threaded portions, the second gap portion being positioned between two adjacent first threaded portions; a reinforcing rail comprising a hollow tubular portion surrounding the lead screw and having a slot extending lengthwise of the central axis; and at least one generally U-shaped bearing secured within the reinforcing rail and contacting the lead screw at a second gap portion.

Claim 16 requires a nut assembly having a nut movable along the hollow tubular portion of the reinforcing rail, the nut having a tongue portion extending radially through the slot and having threads engageable with the first threaded portions of the lead screw for moving the nut in reciprocating motion lengthwise of the rail when the screw is rotated.

Claim 20 requires a follower within the nut body and having a tongue portion extending into the central cavity, the tongue portion having threads for engagement with a threaded lead screw rotatable within the reinforcing rail, the follower having first and second sloping surfaces at opposite ends of the follower; a first wedge within the nut body, the first wedge having a sloping surface for engagement with the first sloping surface of the follower; and a second wedge within the nut body, the second wedge

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having a sloping surface for engagement with the second sloping surface of the follower.

Claim 40 requires a means for biasing the follower in a radial direction to force the threaded surface of the follower into forcible engagement with mating threads of the lead screw; means for adjusting the bias force against the follower to adjust the backlash-resistance of the nut assembly; and means for maintaining the backlash-resistance of the nut assembly substantially at a pre-determined level as the threads of the follower wear during use.

Claim 41 requires providing a lead screw having a plurality of first threaded portions having an outer diameter and extending lengthwise of the lead screw, and at least one second gap portion having an outer diameter that is less than the outer diameter of the first threaded portions, the second gap portion being positioned between two adjacent first threaded portions; providing a reinforcing rail comprising a hollow tubular portion surrounding the lead screw and having a slot extending lengthwise of the central axis; securing the second gap portion of the lead screw to the reinforcing rail with a generally U-shaped bearing.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

EXAMINER'S AMENDMENT

2. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Mr Shaughnessy (51,014) on 1/5/07.

The application has been amended as follows:

In the Claims:

The following claims have been cancelled to allow the case to pass to issue:

Claims 37-40, and 43-47 have been cancelled.

Drawings

3. The drawings, filed 10/6/04, have been accepted as formal.


Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to David M. Fenstermacher whose telephone number is 571-272-7102. The examiner can normally be reached on 10:30-7:00.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richard Ridley can be reached on 571-272-6917. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.


David M. Fenstermacher
Primary Examiner
Art Unit 3682

1/5/07